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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

July 15, 1996

BY HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

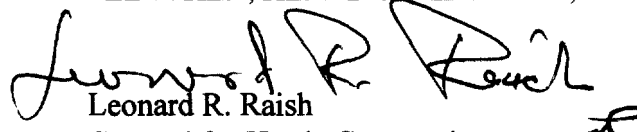
Re: In the Matter of Amendment of the Commission's Rules to Provide for
Unlicensed NII/SUPERNET Operations in the 5 GHz Frequency Band
ET Docket No. 96-100; RM-8648, RM-8653

Dear Mr. Caton:

On behalf of Harris Corporation - Farinon Division, we are filing an original and five (5) copies of their Comments in the above-referenced rule making proceeding.

Respectfully submitted,

FLETCHER, HEALD & HILDRETH, P.L.C.


Leonard R. Raish
Counsel for Harris Corporation -
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LRR:mah
Enclosure

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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In the Matter of)	
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Amendment of the Commission's Rules)	ET Docket No. 96-102
to Provide for Unlicensed NII/SUPERNet)	RM-8648
Operations in the 5 GHz Frequency Range)	RM-8653

**COMMENTS OF
HARRIS CORPORATION - FARINON DIVISION**

Harris Corporation - Farinon Division ("Harris"), through its attorneys, submits the comments below on the above-cited Notice of Proposed Rulemaking ("NPRM"). Generally, Harris supports the concept of unlicensed short range high-speed wireless digital communications devices in harmonization with the HIPERPLAN being developed in Europe. Harris has, however, certain concerns about the point-to-point link aspects set forth in the NPRM and questions the desirability of permitting unlicensed operations of more than a very local nature. Finally, Harris opposes the establishment of a new Part 16 in the Commission's Rules.

I. GENERAL

Harris is a Florida corporation with its headquarters located in Melbourne, Florida. Through its Farinon Division, located in San Carlos, California, Harris designs, develops and manufactures microwave and multiplex systems used by licensees in the terrestrial fixed microwave service. Harris is one of the largest suppliers of microwave equipment in the global market. As a leading manufacturer of equipment used in the terrestrial fixed services, Harris is interested in advancing the state-of-the-art in microwave technology and to maximize the efficient use of frequency bands made available for the microwave services.

II. COMMENTS OF TIA ARE SUPPORTED

Harris contributed to and participated in the preparation of the TIA comments being filed separately in this proceeding. For this reason, Harris fully supports the aforementioned TIA comments and in particular those portions stating: (1) the NII/SUPERNET devices must not be used for unlicensed point-to-point paths exceeding 1 kilometer in length, and (2) the desirability of harmonization of the NII/SUPERNET concept with the European HIPERPLAN. As regards the latter, Harris has continuously promoted the concept of worldwide spectrum harmonization.

III. EXISTING MICROWAVE POINT-TO-POINT BANDS WILL IDEALLY COMPLEMENT NII BAND OPERATIONS

Reading into the NPRM is the premise that microwave links will be important to support successfully the local network operations being envisaged, e.g., (1) linking of community networks to each other, and (2) providing access from any given network to the main telephone access infrastructure in the area of its operation. The 18, 23 and 38 GHz bands have specifically been allocated by the Commission for such short haul, low, medium, or high capacity applications.

IV. COMMISSION SHOULD ADHERE TO ITS CURRENT PRINCIPLE OF USING 18 GHZ, 23 GHZ, AND 38 GHZ BANDS FOR SHORT HAUL MICROWAVE LINKS

Harris emphasizes that the 5 GHz band is a valuable national resource to be used in a highly efficient manner. Use of part of this band for NII/SUPERNET devices for short range high-speed digital communications on an unlicensed basis is considered to be an efficient use. However, utilizing the 5 GHz band spectrum for "hops" of 2 to 10 (or 15) kilometers in length is considered highly inefficient. The Commission correctly made this determination when it allocated the 18 GHz, 23 GHz, and 38 GHz bands for use on short paths and reserving spectrum below 10 GHz for long

“hop” microwave paths and other purposes, e.g., radionavigation and satellite services. Manufacturers, in keeping with the Commission’s spectrum policy, have been producing and are already supplying equipment for short “hop” microwave links in the aforementioned higher bands.

Harris urges the Commission to adhere to its policy on spectrum usage for fixed microwave links. Accommodation of NII/SUPERNET devices at 5 GHz for short transmissions of up to 1 kilometer is fine as a multitude of such operations can then be provided within the spectrum available. However, the point-to-point services needed to support those very local networks should be in separate higher bands where spectrum usage would be coordinated, licensed, and where power authorizations would be sufficient to provide a quality reliable service. Operation of point-to-point services to support unlicensed local networks for distances beyond 1 kilometer would be in this category. Within the 1 kilometer limitation unlicensed mobile and transportable networks, generally described as local area networks, could function, provided EIRP limitations are established to protect equal access to all who desire to enter the unlicensed bands. As a final point, the licensed bands at 18 GHz, 23 GHz, and 38 GHz all have the capability to transport up to 155 Mb/s.

V. HIPERPLAN CAN SHARE WITH MSS BECAUSE ITS MAXIMUM PATH LENGTH IS 1 KILOMETER

Harris questions the discussion on page 7, paragraph 17 of the NPRM. HIPERPLAN maximum path lengths are limited to 1 kilometer with a typical installation being only a few hundred meters in length. For this reason, sharing with MSS is proving feasible. To benefit from the situation, SUPERNET must be restricted to an EIRP corresponding to 1 kilometer links. A reading of page 7, paragraph 17, as written can be misleading as to the true sharing inherent in HIPERPLAN vis-a-vis SUPERNET.

In this connection, Harris applauds the views of the Commission set forth on page 18, paragraph 47 of the NPRM.

VI. ESTABLISHMENT OF A NEW PART 16 IS OPPOSED

On page 23, paragraph 59, the NPRM advises that ARRL opposes the establishment of a Part 16 in the Commission's Rules. Harris strongly supports the view of ARRL as expressed therein. After all, the whole point of unlicensed systems is the absence of a need to be protected.

VII. CONCLUSION

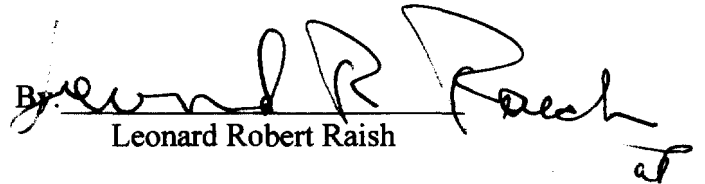
In conclusion:

- (a) The comments being filed separately by TIA are supported by Harris.
- (b) The existing point-to-point microwave bands at 18 GHz, 23 GHz, and 38 GHz offer ideal complements to the local networks involved in NII/SUPERNET.
- (c) Use of the 5 GHz band for local networks and related devices up to 1 kilometer in length is considered efficient use of the spectrum; beyond 1 kilometer in length, point-to-point systems should operate in the 18 GHz, 23 GHz, and 38 GHz bands which are already allocated by the Commission for short "hop" systems and where spectrum usage would be coordinated and licensed, with power to provide a quality service.
- (d) In general, establishment of high EIRP limits for the unlicensed bands is opposed.
- (e) The concept of harmonization of NII/SUPERNET with HIPERPLAN is applauded.

- (f) The views of ARRL in opposition to addition of a Part 16 to the Rules are supported.

Respectfully submitted,

HARRIS CORPORATION-FARINON
DIVISION

By: 
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Its Attorney

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